



## Graft Versus Host Disease (GVHD): A Guide for Patients and Families after Stem Cell Transplant

### What is GVHD?

The immune system is the body's tool to fight infection. It works by seeing harmful cells as “foreign” and attacking them.

When you receive a donor's stem cells (the “graft”), their job is to recreate the donor's immune system in your body (the “host”).

Graft versus host disease (GVHD) is the term used when this new immune system attacks your body. Your donor's cells see your body as “foreign” and attack it—causing damage.

GVHD most commonly affects the:

- skin
- liver
- gastrointestinal (GI) tract

### How long can GVHD last?

GVHD can be acute or chronic. Acute GVHD usually occurs within the first 100 days after your transplant. Chronic GVHD develops after the first 100 days of transplant. Chronic GVHD can recur for several years after transplant.

### Can I prevent GVHD?

There is nothing you can do to prevent GVHD. However, skin GVHD can be

triggered and worsened by sun exposure. Wearing a hat, long sleeves, long pants, and sunscreen will help to control skin GVHD caused by sun damage. Avoiding sun exposure is the best prevention.

GVHD cannot be predicted, but depending on the type of stem cell transplant you received, your doctor may place you on immunosuppressive medications (medications that decrease the immune system's ability to fight infections) to lessen GVHD.

Medications such as cyclosporine, tacrolimus, and sirolimus, suppress the immune system to lessen harmful GVHD. You may be required to take these medications for several months after your transplant.

*It is important to take these medications as prescribed and to report any side effects.*

### What are the signs and symptoms of GVHD?

#### Skin GVHD

- red rash
- itching
- darkening of skin

### **Liver GVHD**

- elevated liver tests
- yellow color to the skin and whites of the eyes
- abdominal pain (later symptom)

### **Gastrointestinal (GI) GVHD**

- watery diarrhea
- stomach cramping (especially before and during bowel movements, and after eating)
- persistent nausea

*Report all new or worsening symptoms to your NIH doctor.*

### **How is GVHD diagnosed?**

Diagnosis is based on symptoms, laboratory results, and tissue biopsies.

Diagnosis of GVHD is difficult because early symptoms are often the same as other side effects and complications after transplant.

*It is important that you report any changes in your skin or bowel patterns to your health care provider.*

### **What is the treatment for GVHD?**

Treatment aims at decreasing the donor's immune reaction against your body. You will be given immunosuppressive medication to decrease this reaction. Steroids, such as prednisone and methylprednisolone, are first-line treatments for GVHD. But steroids weaken your

immune system and ability to fight infection. So depending on how severe your GVHD is, your doctor may want you to be admitted to the hospital for treatment.

### **How can I help manage symptoms of GVHD?**

When your doctor makes your treatment plan, there will be things you can do to help manage GVHD.

#### **Skin care**

- Avoid scratching.
- Use moisturizing lotion. Avoid perfumed lotions.
- Avoid hot showers.
- Use sunscreen with SPF 30 or greater.
- Avoid prolonged sun exposure.
- Wear long sleeves and pants.

#### **Diarrhea**

- Follow the diet prescribed by your doctor and dietitian to prevent worsening diarrhea.
- Avoid spicy foods.
- To avoid skin problems (such as irritation) around your rectal area, it is very important to keep this area clean. Cleanse this area well after each episode of diarrhea. Tell your nurse if this area gets red, cracked, painful, or infected.

## Preventing infection

- Wash your hands often.
- Stay away from sick family members and friends.
- Your doctor may ask you to wear a mask.
- Notify your doctor if you have fevers, chills, or redness/pain at your catheter site.

If you have any questions about GVHD, feel free to ask your nurse or doctor.



2004

This information is prepared specifically for patients participating in clinical research at the Warren Grant Magnuson Clinical Center at the National Institutes of Health and is not necessarily applicable to individuals who are patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

Where applicable, brand names of commercial products are provided only as illustrative examples of acceptable products, and does not imply endorsement by NIH; nor does the fact that a particular brand name product is not identified imply that such product is unsatisfactory.

National Institutes of Health  
Warren Grant Magnuson Clinical  
Center  
Bethesda, MD 20892

Questions about the Clinical  
Center?  
OCCC@cc.nih.gov